

Table 3. Trends in aggregate purchase price and median purchase price of academic research instruments, by detailed type of instrument: 1988-89 and 1993

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Detailed type of instrument	Number of systems			Aggregate purchase price (dollars in millions)		Median price per system (dollars in thousands)	
	1988-89	1993	Percent change	1988-89	1993	1988-89	1993
Total, all instruments	47,288	61,684	30%	\$4,362	\$6,255	\$70	\$65
Computers and data handling instruments	9,522	12,023	26	1,845	1,851	80	61
Computers/components costing:							
\$1,000,000 and over	203	131	-35	1,208	1,067	4,500	6,400
\$500,000 - \$999,999	145	118	-19	82	81	566	672
\$50,000 - \$499,999	4,146	4,384	6	420	472	95	92
\$20,000 - \$49,999	5,029	7,390	47	135	231	26	31
Chromatographs and spectrometers	10,826	13,789	27	754	1,286	86	89
Chromatographs and elemental analyzers ...	3,225	4,391	36	147	195	34	36
Electron/auget/ion scattering	206	335	63	22	77	167	185
UV/visible/infrared spectrophotometer	2,530	3,033	20	100	139	58	43
NMR/EPR spectrometer	1,200	1,318	10	236	362	219	286
Xray diffraction systems	993	927	-7	98	137	106	136
Other spectroscopy instruments	2,672	3,785	42	151	376	73	98
Microscopy instruments	4,176	5,597	34	271	547	82	76
Electron microscopes	1,589	1,768	11	185	340	118	163
Other microscopy instruments	2,587	3,829	48	87	207	30	49
Bioanalytical instruments	9,671	10,205	6	400	468	34	40
Cell sorters/counters, cytometers	139	258	86	23	37	198	117
Centrifuges and accessories	4,901	5,113	4	179	194	30	35
DNA/protein synthesizers/sequencers/analyzers	1,202	1,294	8	104	103	84	84
Growth/environmental chambers	975	703	-28	34	48	29	61
Scintillation/gamma radiation/counters/detectors	2,454	2,837	16	59	87	22	24
Other instruments	13,093	20,071	53	1,092	2,103	69	68
Electronics instruments (cameras,etc)	2,463	2,587	5	118	128	40	38
Temperature/pressure control/measurement instruments	1,500	2,056	38	48	169	33	55
Lasers and optical instruments	2,873	4,371	52	181	300	68	72
Robots, manufacturing machines	719	995	38	37	103	66	82
Telescopes/astronomical	168	298	77	66	118	222	221
Research vessels/planes/helicopters	37	39	5	140	130	1,000	1,075
Molecular/electron/ion beam systems	357	369	3	67	113	210	204
Other major instruments ¹	718	922	28	244	395	181	130
Other, not elsewhere classified	4,257	8,433	98	191	648	57	59

¹ Includes nuclear reactors/nuclear science instrument systems, wind/wave/water/shock tunnels, and major prototype systems.

NOTES: This table includes data for supersystems, which are large, integrated instrumentation systems/facilities generally with an aggregate purchase price of \$1 million or more.

This table, which includes data for two survey cycles, reflects a change in the determination of in-scope instruments in the survey.

In 1988-89 the minimum purchase price for an instrument to be considered in scope was \$10,000; that minimum was changed to \$20,000 in 1993.

For consistency, data from the 1988-89 survey were standardized using the same minimum price criterion of \$20,000 in constant 1993 dollars, based on the GDP implicit price deflator.

Because of rounding, details may not add to totals.

SOURCE: National Science Foundation/SRS, Survey of Academic Research Instruments and Instrumentation Needs: 1993